

Features

- Low reverse current and low forward voltage
- High reliability
- Small surface mounting type



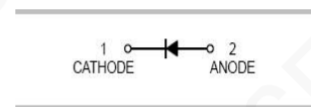
Typical Applications

- For general purpose applications

SOD-123FL

Mechanical Data

- Case: SOD-123FL
- Molding compound, UL flammability classification rating 94V-0
- Terminals: Tin plated leads, solderable per MIL-STD-202, Method 208



Maximum Ratings (@T_A=25°C unless otherwise specified)

Parameter	Symbol	B5819W	Units
Peak Repetitive Reverse Voltage	V _{RRM}	40	V
RMS Reverse Voltage	V _{RMS}	28	V
Maximum Average Forward Output Current	I _{F(AV)}	1	A
Peak Forward Surge Current, 8.3ms Single Half-sine-wave	I _{FSM}	10	A

Thermal Characteristics

Parameter	Symbol	B5819W	Units
Power Dissipation	P _D	500	mW
Typical Thermal Resistance per leg	R _{θJA} *	200	°C/W
Operating Junction Temperature Range	T _J	125	°C
Storage Temperature Range	T _{STG}	-55 to +150	°C
* Part mounted on FR-4 board with recommended pad layout			

Electrical Characteristics (@ $T_A=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	Min.	Typ.	Max.	Units
Forward Voltage	V_F^*	$I_F=1\text{A}$	-	-	0.60	V
		$I_F=3\text{A}$	-	-	0.90	
Maximum Peak Reverse Current	I_R^{**}	$V_R=40\text{V}$	-	-	1	mA
Capacitance Between Terminals	C_T	$V_R=4\text{V}, f=1\text{MHz}$	-	39	120	pF

*Pulse width $\leq 380\text{ }\mu\text{s}$, Duty cycle $< 2\%$
 **pulse test, $t_p \leq 5\text{ms}$

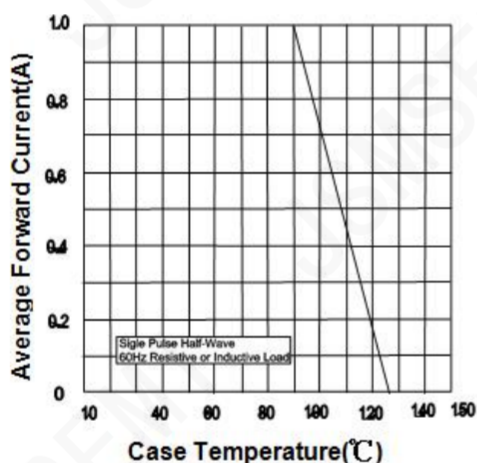
Ratings and Characteristic Curves ($T_A=25^\circ\text{C}$ unless otherwise noted)


Fig.1 Forward Current Derating Curve

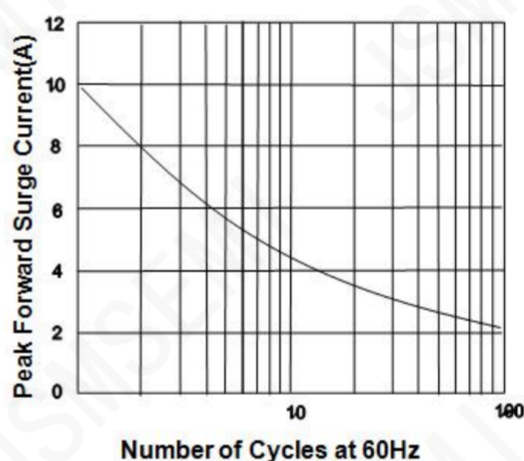


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

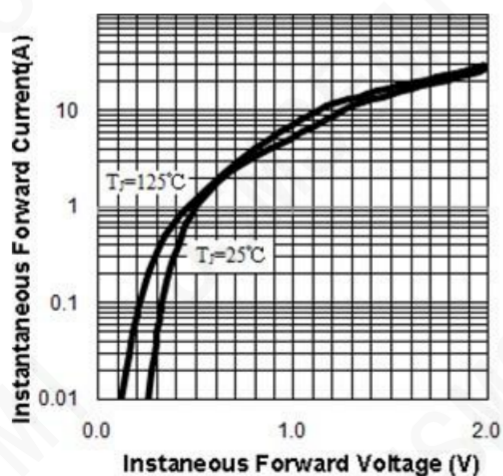


Fig.3 Typical Instantaneous Forward Characteristics

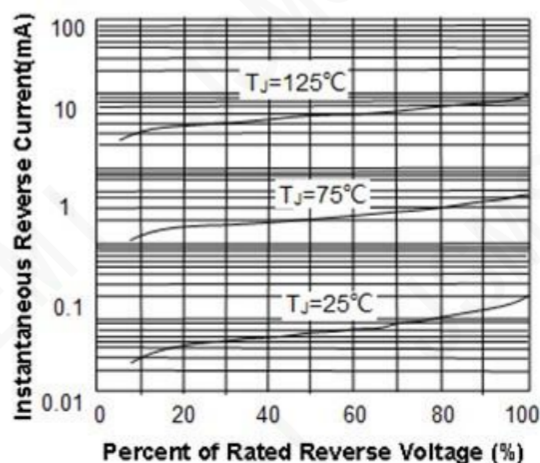
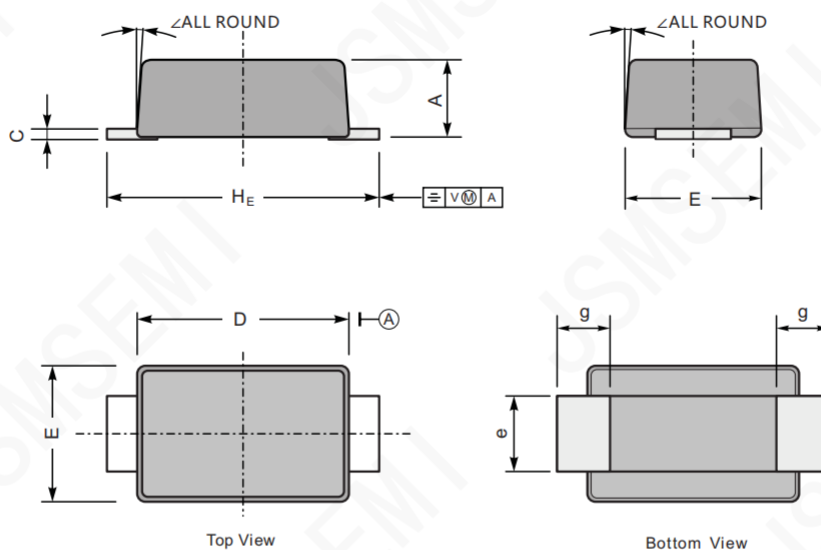


Fig.4 Typical Reverse Characteristics

PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-123FL



UNIT		A	C	D	E	e	g	H _E	∠
mm	max	1.1	0.20	2.9	1.9	1.1	0.9	3.8	7°
	min	0.9	0.12	2.6	1.7	0.8	0.7	3.5	
mil	max	43	7.9	114	75	43	35	150	
	min	35	4.7	102	67	31	28	138	

The recommended mounting pad size

